

PATENT  
Amendment Under 37 CFR 1.116  
EXPEDITED PROCEDURE  
Group 2861

AMENDMENT(S) TO THE CLAIMS

1. (Currently amended) An ink jet printer, comprising:
  - a carrier for mounting a first printhead and a second printhead;
  - a first ink reservoir coupled in fluid communication with said first printhead, said first ink reservoir containing a chromatic dye-based ink;
  - 5 a second ink reservoir coupled in fluid communication with said second printhead, said second ink reservoir containing a chromatic pigment-based ink,  
wherein a physical separation between said first printhead and said second printhead relative to a scanning direction of said first printhead and said second printhead builds in a drying time between a time that a chromatic dye-based ink drop expelled by said first printhead contacts
  - 10 a chromatic pigment-based ink drop expelled from said second printhead at a particular pixel location on a print media sheet or at an adjacent location on said print media sheet where said chromatic dye-based ink drop and said chromatic pigment-based ink drop may overlap.
2. (Original) The ink jet printer of claim 1, wherein said chromatic dye-based ink and said chromatic pigment-based ink have substantially the same hue, but different chroma.
3. (Original) The ink jet printer of claim 2, wherein said hue is one of cyan and magenta.
4. (Original) The ink jet printer of claim 2, wherein said chromatic pigment-based ink has a lower optical density than said chromatic dye-based ink.
5. (Original) The ink jet printer of claim 2, wherein said chromatic pigment-based ink has a lower colorant concentration than said chromatic dye-based ink.
6. (Original) The ink jet printer of claim 2, wherein said chromatic pigment-based ink has a lower chroma than said chromatic dye-based ink.

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7. (Original) The ink jet printer of claim 2, wherein said chromatic pigment-based ink has a lower chroma than said chromatic dye-based ink by at least 10 percent of full saturation.

8. (Original) The ink jet printer of claim 1, wherein said chromatic pigment-based ink has a lower optical density than said chromatic dye-based ink.

9. (Original) The ink jet printer of claim 1, said second ink reservoir including a plurality of ink chambers containing a plurality of chromatic pigment-based inks, each having a respective hue, and said second printhead including a plurality of nozzle arrays, wherein a first nozzle array of said plurality of nozzle arrays is coupled in fluid communication with a first ink chamber of said plurality of ink chambers that contains a first chromatic ink having a first hue, and a second nozzle array of said plurality of nozzle arrays is coupled in fluid communication with a second ink chamber of said plurality of ink chambers that contains an achromatic ink.  
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10. (Original) The ink jet printer of claim 9, said second ink reservoir including a third nozzle array coupled in fluid communication with a third ink chamber containing a second chromatic ink having a second hue different from said first hue, said second nozzle array for jetting said achromatic ink being positioned between said first nozzle array for jetting said first chromatic ink having said first hue and said third nozzle array for jetting said second chromatic ink having said second hue.  
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11. (Original) The ink jet printer of claim 10, wherein said first chromatic ink is one of cyan and magenta, and the second chromatic ink is the other of cyan and magenta.

12. (Original) The ink jet printer of claim 11, wherein said achromatic ink is black.

13. (Original) The ink jet printer of claim 9, wherein said achromatic ink is black.

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14. (Original) The ink jet printer of claim 9, said first ink reservoir including a plurality of ink chambers containing a respective plurality of chromatic dye-based inks, each having a respective hue, at least one of said plurality of chromatic dye-based inks having a hue that is substantially the same as at least one of said plurality of chromatic pigment-based inks in said 5 second ink reservoir.

15. (Original) The ink jet printer of claim 14, wherein of said plurality of chromatic dye-based inks in said first ink reservoir and said plurality of chromatic pigment-based inks in said second ink reservoir that have substantially the same hue, their respective chromas are different by at least 10 percent of full saturation.

16. (Original) The ink jet printer of claim 1, further comprising a controller electrically coupled to each of said first printhead and said second printhead, said controller being configured to form a color image on a print medium using both said chromatic dye-based ink and said chromatic pigment-based ink.

17. (Original) The ink jet printer of claim 16, wherein said chromatic dye-based ink and said chromatic pigment-based ink have substantially the same hue, but different chroma.

18. (Original) The ink jet printer of claim 1, wherein said first printhead and said first ink reservoir are configured as a first unitary printhead cartridge.

19. (Original) The ink jet printer of claim 18, wherein said second printhead and said second ink reservoir are configured as a second unitary printhead cartridge.

20. (Currently amended) A method of printing, comprising the step of forming a color image using both a chromatic dye-based ink ejected from a first printhead and a chromatic pigment-based ink ejected from a second printhead,

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wherein a physical separation between said first printhead and said second printhead  
5 relative to a scanning direction of said first printhead and said second printhead builds in a drying time between a time that a chromatic dye-based ink drop expelled by said first printhead contacts a chromatic pigment-based ink drop expelled from said second printhead at a particular pixel location on a print media sheet or at an adjacent location on said print media sheet where said chromatic dye-based ink drop and said chromatic pigment-based ink drop may overlap.

21. (Original) The method of claim 20, wherein said chromatic dye-based ink and said chromatic pigment-based ink have substantially the same hue, but different chroma.

22. (Original) The method of claim 21, wherein said hue is one of cyan and magenta.

23. (Original) The method of claim 21, wherein said chromatic pigment-based ink has a lower optical density than said chromatic dye-based ink.

24. (Original) The method of claim 21, wherein said chromatic pigment-based ink has a lower colorant concentration than said chromatic dye-based ink.

25. (Original) The method of claim 21, wherein said chromatic pigment-based ink has a lower chroma than said chromatic dye-based ink.

26. (Original) The method of claim 20, wherein chromatic dye-based ink drops and chromatic pigment-based ink drops may be layered, or be overlapping, in forming said color image.